



Identifying and Triaging Adult Patients at Increased Risk for Severe COVID-19 in Outpatient Settings

This document is intended to help outpatient New York City (NYC) health care providers decide which adult patients with possible or confirmed COVID-19 may benefit from close monitoring (such as daily check-ins via phone call or videoconference) or in-person assessment.

Although most cases of COVID-19 are mild, the clinical status of some patients can deteriorate rapidly, often during the second week of illness.¹ There are also reports of patients with COVID-19 who initially present with hypoxemia despite having only minimal symptoms. Providers can take steps to identify a clinical decline promptly so care can be escalated.

The following findings may help providers assess risk for the development of severe symptoms:

Findings Associated With Increased Risk for Severe COVID-19 in Adults	
Age	Among adults, the risk for severe illness from COVID-19 increases with age, with older adults at highest risk.
Race/Ethnicity	In NYC, Black and Hispanic/Latino residents have higher rates of hospitalization and death.
Underlying Medical Conditions	<p>The Centers for Disease Control and Prevention (CDC) list the following as risk factors for severe COVID-19:</p> <ul style="list-style-type: none">• Cancer• Chronic kidney disease• COPD (chronic obstructive pulmonary disease)• Heart conditions, such as heart failure, coronary artery disease or cardiomyopathies• Immunocompromised state (weakened immune system) from solid organ transplant• Obesity (body mass index 30 kg/m or more²)• Pregnancy• Sickle cell disease• Smoking• Type 2 diabetes mellitus <p>*Additional information, including conditions that might put someone at increased risk, can be found on the CDC website.</p>

¹Xie J, Tong Z, Guan X, Du B, Qiu H, Slutsky A. Critical care crisis and some recommendations during the COVID-19 epidemic in China. *Intensive Care Med.* 2020;46:837-840; Gandhi RT, Lynch JB, del Rio C. Mild or moderate Covid-19. *NEJM.* July 22, 2020. DOI: 10.1056/NEJMcpc2009249

Social Factors	Resides in a congregate living setting that serves at-risk populations (for example, nursing home, homeless shelter)
Self-Reported Symptoms	Worsening shortness of breath or cough
Time Since Symptom Onset	Some patients deteriorate rapidly about one week after illness onset
Physical Examination	<ul style="list-style-type: none"> • Signs and symptoms of pneumonia • O2 saturation (SpO2) less than 95% • Respiratory rate greater than 20 breaths per minute (a rate greater than 24 often indicates critical illness) • Blood pressure – lower blood pressure, particularly diastolic, has been associated with an increased risk of poor COVID-19 outcomes in the week following presentation for urgent care²
Laboratory Findings	<ul style="list-style-type: none"> • Decreased lymphocytes • Increased neutrophils • Increased liver transaminases (ALT and AST) • Increased C reactive protein • Increased ferritin • Increased D-dimer • Increased lactate dehydrogenase
Radiology Findings	Any new abnormalities on a chest radiograph or computed tomography consistent with viral pneumonia

Outpatient follow-up of adults who do not require initial hospitalization

The following management may be considered if immediate hospital or emergency department referral is not needed:

Patient’s Status and Risk Factors	Management
Patient with possible or confirmed COVID-19 who is clinically stable and at low risk for severe disease	<ul style="list-style-type: none"> • Refer the patient for COVID-19 testing at your facility or another testing site. • Assess whether the patient has adequate support to meet their daily needs while isolating at home. Information about whether the patient’s home setting is appropriate for outpatient COVID-19 care can be found on the CDC website. • Advise the patient to contact you or their primary care provider if their illness deteriorates.

² Sun H, Jain A, Leone MJ et al. CoVA: An Acuity Score for Outpatient Screening that Predicts COVID-19 Prognosis. *The Journal of Infectious Diseases*.2020;jiaa663. <https://doi.org/10.1093/infdis/jiaa663>.

	<ul style="list-style-type: none"> ○ Make sure the patient has a clear communication plan for reaching a health care provider if they have follow-up questions or concerns. ○ Instruct the patient to call 911 immediately if they develop symptoms that require urgent evaluation, including new or worsening dyspnea, chest pain, cyanosis or altered mental status. This is important because some patients develop severe or worsening symptoms suddenly. ● Consider scheduling a check-in during the second week of illness due to the possibility of decompensation during this period. The initial check-in can be done via telehealth (phone call or videoconference). Consider a follow-up visit in person for a focused physical examination or lab testing, based on clinical judgement. ● Resources for people with possible or confirmed COVID-19 in NYC, including food delivery and other programs, can be found on the COVID-19 Citywide Information Portal. ● Help arrange temporary alternative housing (such as an NYC COVID-19 Take Care Hotel) if the patient cannot isolate safely where they live. You or the patient can call NYC Health + Hospitals at 844-NYC-4NYC (811-692-4692).
<p>Patient with possible or confirmed COVID-19 does not require immediate hospitalization but may be at increased risk for complications due to COVID-19</p>	<ul style="list-style-type: none"> ● In addition to the above, discuss in detail when and how to seek appropriate medical care. ● Plan for regular check-ins via telehealth or in person if the patient’s symptoms are severe or worsening. <ul style="list-style-type: none"> ○ Patients should be monitored for at least 10 days from symptom onset. ○ Frequency of follow-up should be based on clinical judgement and trajectory of illness but is recommend at a minimum every 2-3 days. ● Consider providing equipment for home health monitoring, such as a pulse oximeter, to high-risk patients with mild to moderate COVID-19.³ ● Consider dedicating staff to perform routine follow-up with these patients to check on symptoms and oxygen saturation through telehealth, in person or both.

³Shah S, Majmudar K, Stein A, et al. Novel use of home pulse oximetry monitoring in COVID-19 patients discharged from the emergency department identifies need for hospitalization. *Acad Emerg Med*. 2020;10.1111/acem.14053. Published 2020 June 17. doi:10.1111/acem.14053. Accessed August 10, 2020.

Resources

- The BMJ: [COVID-19: A Remote Assessment in Primary Care](#)
- Cambridge Health Alliance: [Clinical Resources and Telephonic Evaluation and Management Tools](#)
- CDC: [Phone Advice Line Tool for Possible COVID-19 Patients](#)
- The New England Journal of Medicine: [Clinical Practice Article on Mild or Moderate Disease](#)

The NYC Health Department may change recommendations as the situation evolves. 11.17.20